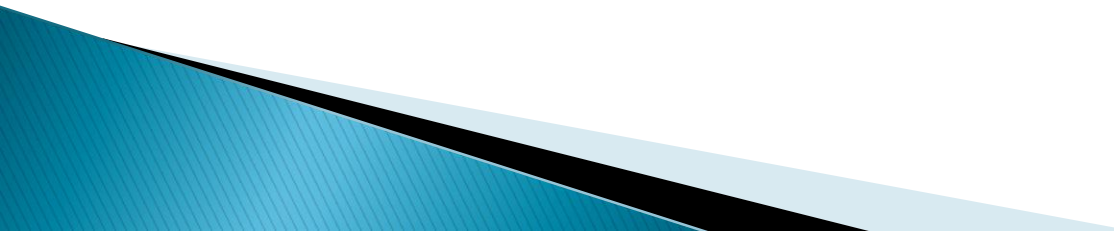


Advanced Transit Overview

Dr. Stanley Young, PhD, PE

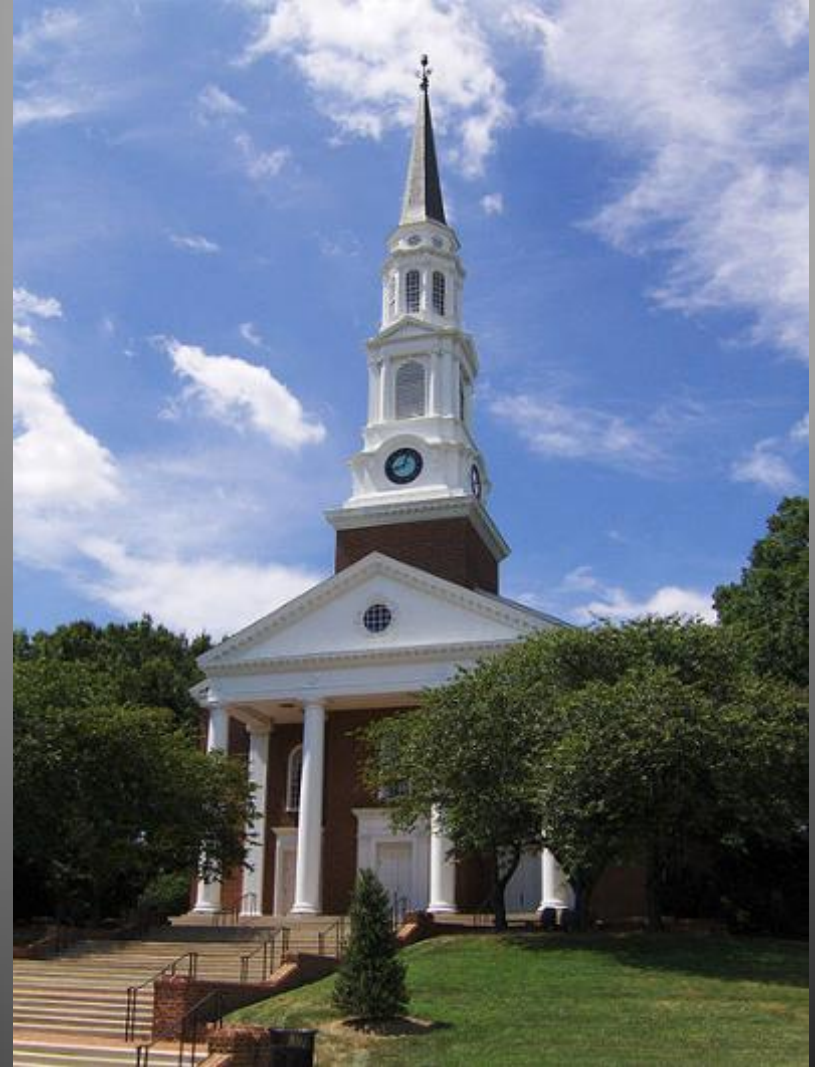
University of Maryland
Center for Advanced Transportation Technology (CATT)
Director of CATTWorks
Advanced Transit Association
President and Member of Board of Directors

ADVANCED TRANSIT ASSOCIATION

- ▶ International association of active and retired professionals and enthusiasts
 - ▶ Membership is open to anyone
 - ▶ We do not endorse any particular company or system
 - ▶ We strive to serve as an objective information resource on advanced transit options
- 

UNIVERSITY OF MARYLAND AND CATT

- ▶ Located miles from our nation's capital
- ▶ 37,000 students
- ▶ Center for Advanced Transportation Technology (CATT) affiliated with Civil and Environmental Engineering Department
- ▶ CATT Focuses on the application of technology in the transportation field



What is Personal Rapid Transit (PRT)?

- ▶ Fully automated
- ▶ Small vehicles, ~4 people/vehicle
- ▶ ~25 MPH
- ▶ Direct origin to destination
- ▶ 3 Second Headway
- ▶ Modern implementations at Heathrow and Masdar
- ▶ Group Rapid Transit (GRT), similar to PRT but larger shared vehicles, Suncheon installation

Source: Ultra PRT, 2012



Source: ATRA, 2012

Automated Transit Networks (ATN)

- ▶ More inclusive term
- ▶ Encompasses PRT, GRT, Smart Buses, auto taxis, etc.
- ▶ Fully automated and fully networked
- ▶ Small and large vehicles
- ▶ Capable of direct origin to destination

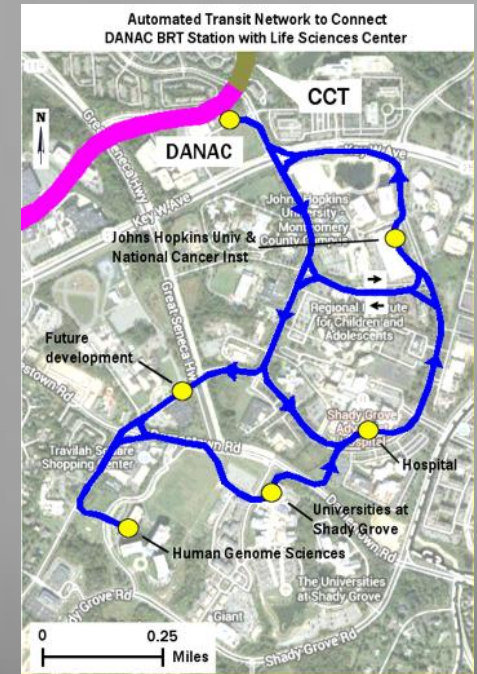


What about Automated Vehicles...

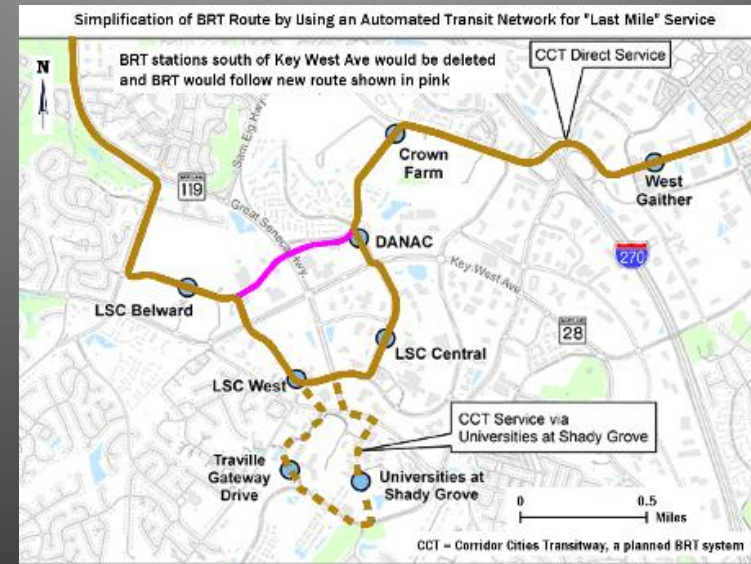
- ▶ The automated vehicle movement initiated by DARPA, and now lead by Google hastens the technology needed for ATN
- ▶ In fact ... discussions of automated vehicles are quickly evolving to 'what if a car can drive itself'...
 - Do we need to own as many?
 - Can it serve as an auto taxi fleet?
 - Will our concept of public transit rapidly evolve?
- ▶ The impact of the underlying concepts of driverless vehicles and ATNs are synonymous ...

ATN as an activity center circulator and major transit feeder

- ▶ ATN can serve as an activity center circulator & feed to an adjacent transit station
- ▶ ATN's small footprint allows it to be built through narrow corridor and even into buildings
- ▶ Allows BRT to operate as 'Rapid' transit

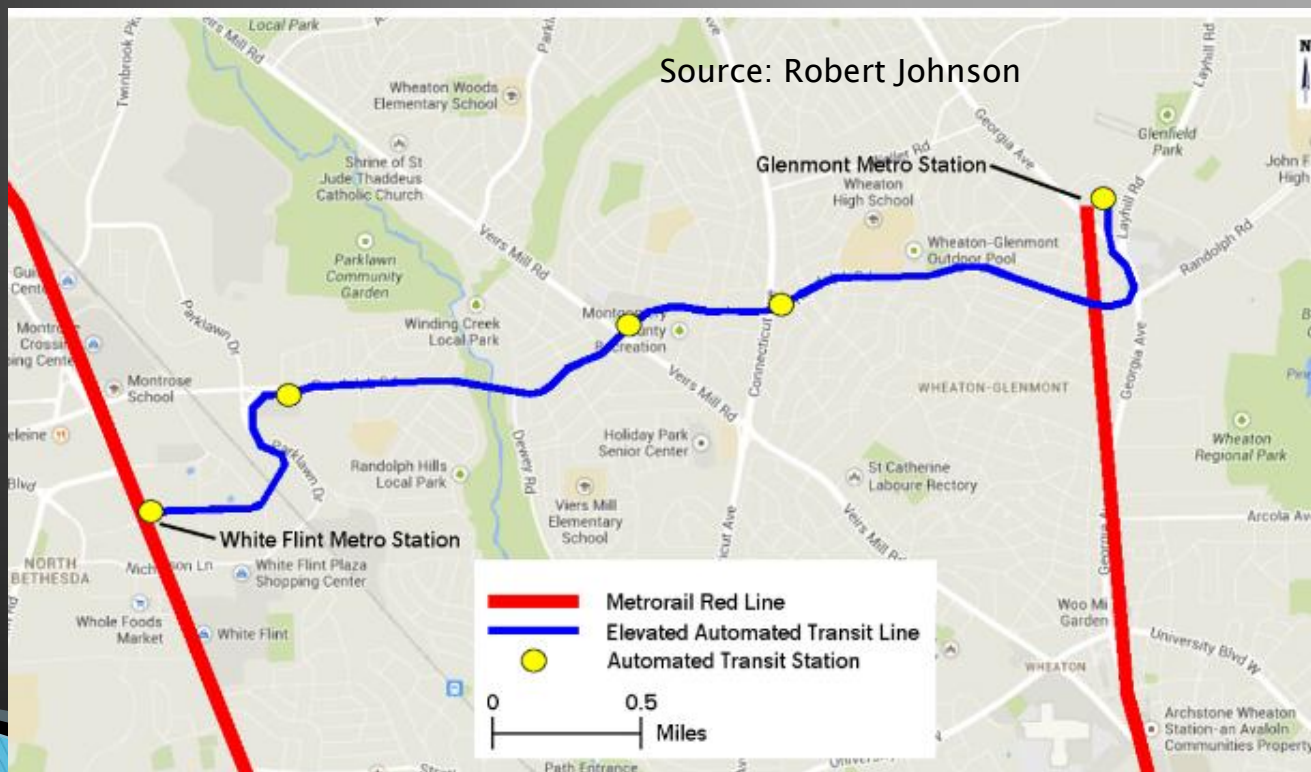


Source: Robert Johnson



ATN as Transit Interconnect

- ▶ Existing roadway too narrow for BRT
- ▶ ATN (GRT) connects subway and BRT stations
- ▶ Enabled by air rights above existing roadway



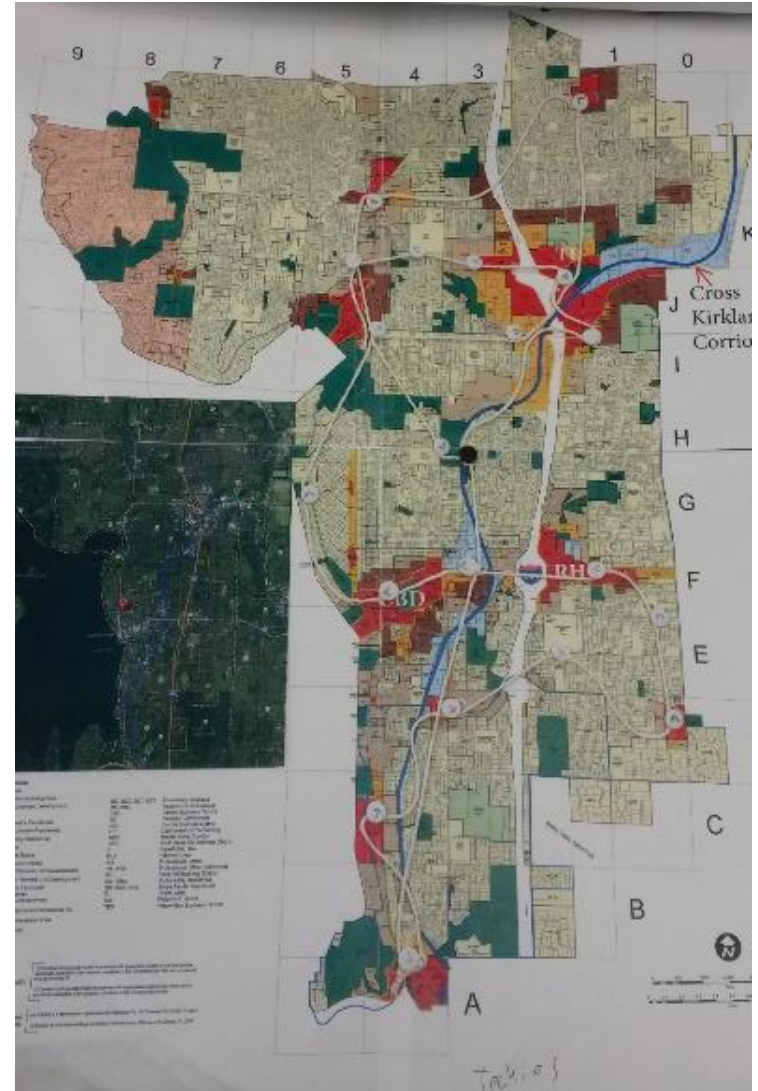
Technix

- ▶ Annual ATRA meeting held before the Transportation Research Board
- ▶ Included a “Charrettelit” on Kirkland
 - Broke into teams by affiliation
 - Sketched ATN routes for Kirkland



Imagineering Activity

- ▶ Forced thought on nature of connectivity
- ▶ Provided forum for sharing knowledge of area
- ▶ Input from various perspectives



Introduction of Speakers

- ▶ Peter Muller
- ▶ David Gow

